
HEALTH MAINTENANCE AND THE PREVENTION OF DISABILITY AS VIEWED BY AN INTERNIST*

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I SHALL introduce my discussion of the role of the internist in preventive medicine with two quotations. Dr. Jacob Bigelow, writing in 1852, said:

Most men form an exaggerated estimate of the powers of medicine, founded on the common acceptance of the name, that medicine is the art of curing disease. That this is a false definition is evident from the fact that many diseases are incurable, and that one such disease must at last happen to every living man. A far more just definition would be that medicine is the art of understanding diseases, and of curing or relieving them when possible.¹

It is interesting to note that the concept of prevention was not included when this was written some 122 years ago. However, 72 years ago Sir William Osler wrote: "To wrest from nature the secrets which have perplexed philosophers in all ages, to track to their sources the cause of disease, to correlate the vast stores of knowledge, that they may be quickly available for the prevention and cure of disease—these are our ambitions."² Here the greatest physician of the turn of the century, an internist, recognized the importance of not only treating and curing disease, but of identifying its origins and promoting its prevention.

As a cardiologist I early became aware that the internist was not necessarily a good person to carry on the day-to-day work of prevention. He must mix prevention with his other duties, which include the identification and treatment of acute disease and the diagnosis and man-

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agement of chronic disease. If he does not include prevention, he is doing an incomplete job. However, a physician trained in internal medicine is apt to be readily bored with a heavy program of preventive medicine, since he chose this training because he was excited and stimulated by acute disease. His reading, his total education, and his practice emphasize the great intellectual stimulation and satisfaction of watching the processes of disease change under his eyes. Whether these changes are for the better or the worse, they present a dynamic spectrum of endless fascination and perpetual gratification. The maintenance of health through the application of prophylactic measures is more static, while, of course, also a challenge. However, because the internist is usually less than enthusiastic about a major role in prevention, he tends not to carry out this role well. Further, the internist represents a highly trained and expensive labor. The unit cost of his services applied to a preventive program is high. For all these and other reasons I shy away from endorsing for the internist a major role in prevention—major in the sense that the largest portion of his or her time will actually be expended in a preventive effort. Allied health personnel, as a rule, are cheaper and better qualified to carry on an efficient and broad preventive program under proper professional supervision.

As a teacher and chief of medicine at a teaching hospital I was confronted early with the problem of screening in the hospital, particularly through automated biochemical determinations, which were promoted with the idea that with such routine biochemical screening of all patients (which I opposed) we would be able to prevent disease by early identification. Aside from the highly questionable validity of this principle, my opposition was based on the consideration that it was important for the young man and woman in medicine to learn discrimination and selection. It was my view that when the young physician and student no longer had to think, thanks to laboratory work, he or she would be robbed of one of the most precious opportunities of a training career. I lost this battle against Sequential Multiple Analyses (SMA) screening because it was pointed out to me that my position was economically indefensible. Multiphasic biochemical screening of all patients was far cheaper than selective blood studies. I cite this problem not because it is crucial as yet, but as an example of certain difficulties we encounter when we endeavor to reconcile the presumed needs of society in health maintenance with the needs present in an academic center. However, I

am not sure that my concern does not apply equally to community hospitals and to private practice. In our quest for perpetual good health we must not end up with a medical profession composed of blockheads.

As a teacher and practitioner I also became aware that the field of prevention is often looked upon by physicians themselves only in terms of communicable diseases such as diphtheria and poliomyelitis. In actuality, a very large area of prevention often is not considered or discussed in which lie a number of problems of internal medicine. One problem is the invalidism caused by iatrogenic influences. As a cardiologist I have seen limitation of life resulting from improper analysis of cardiac murmurs, incorrect diagnoses of angina pectoris, erroneous evaluation of shortness of breath and swelling of ankle, and faulty interpretations of electrocardiograms. An incorrect diagnosis of angina where it does not exist may limit the usefulness of a member of society as much as 100% in terms of income and contributions to his home. Unnecessary invalidism can also result from failures to apply current knowledge properly. For example, one still sees far too often the patient with a vascular stroke whose rehabilitation was delayed far beyond the optimal period and whose degree of recovery therefore has been permanently limited. The prevention of disease must include awareness of the need for early and active intervention. Disability can also result from pharmacologic agents. Valuable as is our vast array of drugs in the treatment of illness, many of these add measurably to the number of days patients are incapacitated. I was told recently of a study in our area where 30% of the patients in one hospital ward were suffering some kind of drug reaction—reactions which were inappropriate, undesirable, uncomfortable, and, in some cases, actually incapacitating. The prevention of illness through the conservative, selective use of drugs and through a better education of physicians as to their indications and limitations can hardly be overemphasized.

My service in various programs of the American Heart Association and the Regional Medical Program made me aware of the types of physicians who could contribute especially effectively to prevention in our system of health care. Of course I noted the vital role of industrial physicians, public health physicians, and those doctors who—interested in the business and managerial aspects of medicine—have established executive or other examination services. It was clear that general practitioners, pediatricians, certain internists, and some subspecialists have

important contributions to make, and I became more conscious of the limited role of others such as surgeons, physicians engaged primarily in laboratory medicine, radiologists, and certain subspecialists. Therefore, in emphasizing the role of the physician in any preventive program we must be selective in identifying those types of physicians from whom a meaningful contribution could be expected, in line with their professional interests and training.

As a cardiologist with some experience in epidemiology I became conscious of the critical importance of epidemiology in providing a scientific basis for any preventive program. There is considerable glibness and an attitude of evangelism among some advocates of prevention which often overlooks sound, scientific facts. As a member of the Task Force in Arteriosclerosis of the National Heart and Lung Institute and of the Multiple Risk Factor Intervention Trial, I am painfully aware of gaps in our knowledge of the etiology, course, and prevention of disease—particularly in the cardiovascular field. These gaps often present seemingly insurmountable obstacles to primary prevention. Epidemiology can assist greatly in providing clues to causation, in better documentation of the natural history of disease, and in undertaking properly controlled studies to evaluate various techniques of diagnosis and prevention.

As regards this last point, Cochrane and Holland, writing in 1971 on the validation of screening procedures, listed conditions for which they found that there was insufficient evidence to justify routine tests,³ which included carcinomas of the bronchus, breast, and cervix. Discussing the last of these, the authors said: 'In spite of the strong emotions associated with this subject, the scientific situation is relatively clear. The hypothesis is that on the basis of cervical smears women can be identified who are at great risk of developing carcinoma of the cervix, and that this risk can be diminished or abolished by subsequent therapy.' They continue: "The present position is very depressing. It seems really possible that we will not discover in the next ten years whether the hypothesis mentioned above is correct or not." The routine tests which these authors describe are, of course, potentially crucial in the prevention of disease. The conclusion of these authors as to the flimsiness of our scientific data in these important areas is humbling, and it may serve as a valuable stimulus to important further research, including controlled studies using standard epidemiological techniques.

In conclusion, clearly the internist has an important role in prevention. However, I believe that this role must be somewhat circumscribed. In clinical investigation, in longitudinal surveys of the natural history of disease, and in controlled trials in the use of certain preventive techniques he or she can be of great assistance. Such studies cannot be done by epidemiologists and statisticians alone; they require a contribution from internists. The internist is also important in setting standards of prevention which are compatible with scientific facts, consistent with community needs, and in accord with a realistic appraisal of their probable acceptance by the medical profession—and in determining which modifications may be necessary to assure its participation. The internist is essential as a critic of the work of other disciplines. The health planners, the public health officials, and the nonprofessional bureaucracy are not always right. Neither are the internists, but they are probably more reactionary, and therefore, each group can counterbalance the other. The internist should act as a supervisor of the clinical aspects of prevention, relying upon members of the allied health professions to accomplish the major portion of the work. The internist is also an influential and therefore essential promoter of concepts of prevention, both to the patient and to the community as a whole. Equally important, he must do a far better job than he is doing at present in promoting prevention in medical school curricula, within hospitals and clinics, and within medical societies. Our educational efforts are still in their infancy and require much tender, loving care. Even though he is primarily intrigued by and involved in the diagnostic and therapeutic issues of acute, subacute, and chronic illness, the internist must include in his approach to every clinical problem a meaningful and effective consideration of the prevention of disease and disability.

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